

CLAIMS

What is claimed is:

1. A method comprising:
 - receiving input to create an interface based representation of a portion of an electronic design;
 - generating a table based on the input, the table comprising a row, a first column, and a second column, the row corresponding to a signal in the portion of the electronic design, the first column corresponding to a first instance in the portion of the electronic design, and the second column corresponding to a second instance in the portion of the electronic design;
 - adding a first notation in the table at an intersection of the row and the first column based on the input; and
 - adding a second notation in the table at an intersection of the row and the second column based on the input, the first notation and the second notation representing an interconnection between the first instance and the second instance in the portion of the electronic design.
2. The method of claim 1 wherein said interconnection between the first instance and the second instance comprises connections between a plurality of ports of the first instance and a plurality of ports of the second instance.

1 3. The method of claim 1 wherein one or more of said first notation and said second
2 notation comprises information indicating a direction of the interconnect between
3 the first instance and the second instance.

1 4. The method of claim 1 further comprising:
2 receiving additional input to further define the interface based representation of
3 the electronic design;
4 adding a plurality of additional rows to the table based on the additional input,
5 each of the additional rows corresponding to one of a plurality of additional
6 signals in the portion of the electronic design;
7 adding a plurality of additional columns to the table based on the additional input,
8 each of the additional columns corresponding to one of a plurality of
9 additional instances in the portion of the electronic design; and
10 adding notations in the table at respective intersections of rows and columns to
11 represent interconnections between one or more of the first instance, the
12 second instance and one or more of the plurality of additional instances in the
13 portion of the electronic design.

1 5. The method of claim 1 wherein the row comprises at least one cell which contains
2 a signal name of the corresponding signal.

1 6. The method of claim 3 wherein the information indicating the direction comprises
2 one of "O", "I", "B" or "U".

- 1 7. The method of claim 4 wherein at least two of the plurality of additional columns
2 represent separate instances of a component.
- 1 8. The method of claim 4 further comprising adding at least one further column, each
2 of the added further columns corresponds to one of one or more signal attributes
3 for selected additional signals in the portion of the design representation.
- 1 9. A method comprising:
2 receiving a first interface based representation of a first portion of an electronic
3 design;
4 receiving a second interface based representation of a second portion of the
5 electronic design;
6 generating a table based on the first interface based representation of the first
7 portion of the electronic design and the second interface based
8 representation of the second portion wherein each row corresponds to a
9 signal from one or more of the first interface based representation and the
10 second interface based representation and each column corresponds to an
11 instance from one or more of the first interface based representation and the
12 second interface based representation.
- 1 10. The method of claim 9 further comprising receiving input to add notations in the
2 table to indicate an interconnection between one or more instances of the
3 electronic design, each instance represented by one of the plurality of columns.

- 1 11. A method comprising:
2 receiving input to create an interface based representation of a portion of an
3 electronic design;
4 generating a table based on the input, the table comprising one or more rows
5 and one or more columns, each of the rows corresponding to an instance in
6 the portion of the electronic design and each of the columns corresponding to
7 a signal in the portion of the electronic design;
8 adding notations to the table, the notations representing connectivity between
9 instances represented by the one or more rows.
- 1 12. An apparatus comprising:
2 a storage medium having stored therein a plurality of executable instructions,
3 wherein when executed, the instructions operate the apparatus to:
4 receive input to create an interface based representation of a portion of an
5 electronic design;
6 generate a table based on the input, the table comprising a row, a first
7 column, and a second column, the row corresponding to a signal in the
8 portion of the electronic design, the first column corresponding to a first
9 instance in the portion of the electronic design, and the second
10 columns corresponding to a second instance in the portion of the
11 electronic design;

12 add a first notation in the table at an intersection of the row and the first
13 column based on the input; and
14 add a second notation in the table at an intersection of the row and the
15 second column based on the input, the first notation and the second
16 notation representing an interconnection between the first instance and
17 the second instance in the portion of the electronic design.; and
18 at least one processor coupled to the storage medium to execute the
19 instructions.

13. The apparatus of claim 12 wherein said interconnection between the first instance
and the second instance comprises connections between a plurality of ports of the
first instance and a plurality of ports of the second instance.

14. The apparatus of claim 12 wherein one or more of said first notation and said
second notation comprises information indicating a direction of the interconnect
between the first instance and the second instance.

15. The apparatus of claim 12 wherein the instructions further operate to:
receive additional input to further define the interface based representation of the
electronic design;
add a plurality of additional rows to the table based on the additional input, each
of the additional rows corresponding to one of a plurality of additional signals
in the portion of the electronic design;

7 add a plurality of additional columns to the table based on the additional input,
8 each of the additional columns corresponding to one of a plurality of
9 additional instances in the portion of the electronic design; and
10 add notations in the table at respective intersections of rows and columns to
11 represent interconnections between one or more of the first instance, the
12 second instance and one or more of the plurality of additional instances in the
13 portion of the electronic design.

1 16. The apparatus of claim 12 wherein the row comprises at least one cell which
2 contains a signal name of the corresponding signal.

3 17. The apparatus of claim 14 wherein the information indicating the direction
4 comprises one of "O", "I", "B" or "U".

5 18. The apparatus of claim 15 wherein at least two of the plurality of additional
6 columns represent separate instances of a component.

7 19. The apparatus of claim 15 wherein the instructions further operate to add at least
8 one further column, each of the added further columns corresponds to one of one
9 or more signal attributes for selected additional signals in the portion of the design
10 representation.

1 20. An apparatus comprising:
2 a storage medium having stored therein a plurality of executable instructions,
3 wherein when executed, the instructions operate the apparatus to:
4 receive a first interface based representation of a first portion of an
5 electronic design;
6 receive a second interface based representation of a second portion of the
7 electronic design;
8 generate a table based on the first interface based representation of the
9 first portion of the electronic design and the second interface based
10 representation of the second portion wherein each row corresponds to
11 a signal from one or more of the first interface based representation
12 and the second interface based representation and each column
13 corresponds to an instance from one or more of the first interface
14 based representation and the second interface based representation.
15 at least one processor coupled to the storage medium to execute the
16 instructions.

1 21. The apparatus of claim 20 wherein the instructions further operate to receive input
2 to add notations in the table to indicate an interconnection between one or more
3 instances of the electronic design, each instance represented by one of the
4 plurality of columns.

1 22. An apparatus comprising:
2 a storage medium having stored therein a plurality of executable instructions,
3 wherein when executed, the instructions operate the apparatus to:
4 receive input to create an interface based representation of a portion of an
5 electronic design;
6 generate a table based on the input, the table comprising one or more
7 rows and one or more columns, each of the rows corresponding to an
8 instance in the portion of the electronic design and each of the
9 columns corresponding to a signal in the portion of the electronic
10 design;
11 add notations to the table, the notations representing connectivity between
12 instances represented by the one or more rows.
13 at least one processor coupled to the storage medium to execute the
14 instructions.

1 23. A machine accessible storage medium having stored thereon a plurality of
2 executable instructions, wherein when executed, the instructions implement a
3 method comprising:
4 receiving input to create an interface based representation of a portion of an
5 electronic design;
6 generating a table based on the input, the table comprising a row, a first column,
7 and a second column, the row corresponding to a signal in the portion of the

8 electronic design, the first column corresponding to a first instance in the
9 portion of the electronic design, and the second columns corresponding to a
10 second instance in the portion of the electronic design;
11 adding a first notation in the table at an intersection of the row and the first
12 column based on the input; and
13 adding a second notation in the table at an intersection of the row and the
14 second column based on the input, the first notation and the second notation
15 representing an interconnection between the first instance and the second
16 instance in the portion of the electronic design.

24. The machine accessible storage medium of claim 23 wherein said interconnection
between the first instance and the second instance comprises connections
between a plurality of ports of the first instance and a plurality of ports of the
second instance.

25. The machine accessible storage medium of claim 23 wherein one or more of said
first notation and said second notation comprises information indicating a direction
of the interconnect between the first instance and the second instance.

26. The machine accessible storage medium of claim 23 wherein the instructions
further implement:
receiving additional input to further define the interface based representation of
the electronic design;

5 adding a plurality of additional rows to the table based on the additional input,
6 each of the additional rows corresponding to one of a plurality of additional
7 signals in the portion of the electronic design;
8 adding a plurality of additional columns to the table based on the additional input,
9 each of the additional columns corresponding to one of a plurality of
10 additional instances in the portion of the electronic design; and
11 adding notations in the table at respective intersections of rows and columns to
12 represent interconnections between one or more of the first instance, the
13 second instance and one or more of the plurality of additional instances in the
14 portion of the electronic design.

- 1 27. The machine accessible medium of claim 23 wherein the row comprises at least
2 one cell which contains a signal name of the corresponding signal.
- 1 28. The machine accessible medium of claim 25 wherein the information indicating the
2 direction comprises one of "O", "I", "B" or "U".
- 1 29. The machine accessible medium of claim 25 wherein at least two of the plurality of
2 additional columns represent separate instances of a component.
- 1 30. The machine accessible medium of claim 25 wherein the instructions further
2 implement adding at least one further column, each of the added further columns
3 corresponds to one of one or more signal attributes for selected additional signals
4 in the portion of the design representation.

1 31. A machine accessible storage medium having stored therein a plurality of
2 executable instructions, wherein when executed, the instructions implement a
3 method comprising:
4 receive a first interface based representation of a first portion of an
5 electronic design;
6 receive a second interface based representation of a second portion of the
7 electronic design;
8 generate a table based on the first interface based representation of the
9 first portion of the electronic design and the second interface based
10 representation of the second portion wherein each row corresponds to
11 a signal from one or more of the first interface based representation
12 and the second interface based representation and each column
13 corresponds to an instance from one or more of the first interface
14 based representation and the second interface based representation.
15 at least one processor coupled to the storage medium to execute the
16 instructions.

1 32. The machine accessible storage medium of claim 31 wherein the instructions
2 further implement receiving input to add notations in the table to indicate an
3 interconnection between one or more instances of the electronic design, each
4 instance represented by one of the plurality of columns.

5 33. A machine accessible storage medium having stored therein a plurality of
6 executable instructions, wherein when executed, the instructions implement a
7 method comprising:

8 receiving input to create an interface based representation of a portion of an
9 electronic design;

10 generating a table based on the input, the table comprising one or more rows

11 and one or more columns, each of the rows corresponding to an instance in

12 the portion of the electronic design and each of the columns corresponding to

13 a signal in the portion of the electronic design;

14 adding notations to the table, the notations representing connectivity between

15 instances represented by the one or more rows.